

pare General Safety Orders for California. In addition, these committees have assisted in the formation of sub-committees to prepare orders for the different industries.

An attractive exhibit was maintained at the Panama-Pacific International Exposition. Plants to the number of 746 were visited and safety requirements affecting 76,843 employees were installed. Safety bulletins have been issued in English, Italian, Russian, Croatian, Spanish, Portuguese and Greek. An exhibit of safety devices has been prepared to send to the public schools of the State, under the auspices of the Extension Department of the University of California.

The Safety Museum at 525 Market street, San Francisco, has been enlarged, and another museum started in the Union League Building in Los Angeles.

The National Safety Council was joined and a San Francisco branch of the Council formed.

A committee representing the California Metal Producers' Association and the organizations of mine employees prepared Mine Safety Rules for the State. U. S. mine-rescue cars visited the mining districts and the Universities of California and Stanford. The co-operative agreement with the U. S. Bureau of Mines was continued. First-aid instruction was given the miners by a Government expert. Nearly all the mines of the State were visited and the suggestions for safety were generally adopted. Dredges were also examined by the mining engineer and plans formulated to give employees safe working conditions.

#### Statistical Report Gives Striking Data.

A study of the sixty-odd thousand accident reports for the year 1914 reveals some interesting features of California's industrial problems. 678 workmen of an average age of 39 suffered death. About 48 per cent, of those killed left 625 people totally dependent. The average age of those widowed through industrial accident is about 39 years. These widows on an average must provide for about 2½ children of an average age of 9 years. To help meet this burden, employers and insurance companies have already paid \$243,366.00, and payments will continue for four and one-half years from date of accident.

One thousand two hundred and ninety-two workmen suffered nearly all the conceivable forms of physical mutilation. Parts or all of over 600 fingers were cut off; 172 eyes are either missing or have suffered serious impairment of vision; 28 arms and 45 legs were amputated; 31 men were sufficiently disabled to require a life pension. To repair and relieve these workmen, already \$604,743.00 has been paid, and payments will continue, in some cases, as long as life lasts.

The 60,241 men and women who received injuries which left no permanent effect, did suffer sufficiently, however, to require the expenditure of over one million dollars to cure and relieve them from the effects of the injuries.

The time lost through the sixty-odd thousand temporary injuries is equivalent to about 3000 men being laid up for the entire year.

#### UNITED STATES PUBLIC HEALTH SERVICE

Boards will be convened at the Bureau of Public Health Service, 3 "B" Street, S. E., Washington, D. C., and at a number of the Marine Hospitals of the Service, on Monday, January 24, 1916, at 10 o'clock a. m., for the purpose of examining candidates for admission to the grade of Assistant Surgeon in the Public Health Service.

The candidate must be between 23 and 32 years of age, a graduate of a reputable medical college, and must furnish testimonials from two responsible

persons as to his professional and moral character, together with a recent photograph of himself. Credit will be given in the examination for service in hospitals for the insane, experience in the detection of mental diseases, and in any other particular line of professional work. Candidates must have had one year's hospital experience or two years' professional work.

Candidates must be not less than 5 feet, 4 inches, nor more than 6 feet, 2 inches, in height, with relatively corresponding weights.

The following is the order of examination: 1, Physical; 2, Oral; 3, Written; 4, Clinical.

Candidates are required to certify that they believe themselves free from any ailment which would disqualify them for service in any climate.

Examinations are chiefly in writing, and begin with a short autobiography of the candidate. The remainder of the written exercise covers the various branches of medicine, Surgery and Hygiene.

The oral examination includes subjects of preliminary education, history, literature, and natural sciences.

The clinical examination is conducted at a hospital.

The examination usually covers a period of about ten days.

Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order. They will receive early appointments.

After four years' service, assistant surgeons are entitled to examination for promotion to the grade of passed assistant surgeon. Passed assistant surgeons after twelve years' service are entitled to examination for promotion to the grade of surgeon.

Assistant surgeons receive \$2,000, passed assistant surgeons \$2,400, surgeons \$3,000, senior surgeons \$3,500, and assistant surgeon-generals \$4,000 a year. When quarters are not provided, commutation at the rate of \$30, \$40, and \$50 a month, according to the grade, is allowed.

All grades receive longevity pay, 10 per cent. in addition to the regular salary for every five years up to 40 per cent. after twenty years' service.

The tenure of office is permanent. Officers traveling under orders are allowed actual expenses.

For invitation to appear before the board of examiners, address "Surgeon-General, Public Health Service, Washington, D. C."

#### SUMMARY OF THE ANNUAL REPORT OF THE SURGEON-GENERAL OF THE UNITED STATES PUBLIC HEALTH SERVICE.

The annual report of the Surgeon-General of the United States Public Health Service records the largest amount of work performed in the history of that organization. Since the passage of the law of 1912 the public health functions of the Service have materially broadened, thereby increasing greatly its usefulness to the American people. Throughout the report the economic importance of disease prevention is made apparent to the reader.

Perhaps the most important achievement of the year was the discovery that pellagra is a deprivation disease, resulting from a faulty diet containing an excess of carbo-hydrates. While the final experiments which led to this discovery have only recently been completed, the conclusion itself is the culmination of investigations extending over a period of seven years. The work has consisted of epidemiological field studies, actual feeding experiments conducted at numerous places in Georgia and Mississippi, and experimental research at Spartanburg, South Carolina, and other places.

A new national quarantine station was opened at

Galveston, Texas, and the control of the Boston station was transferred to the Public Health Service. A great reduction in immigration has been observed during the year, with a corresponding increase in the number of aliens certified. At the Port of New York, the percentage has risen from 2.29, previous to the development of the European conflict, to 5.37 since that time, this increase largely being due to the fact that with the decreased immigration more time can be devoted to the examination. The number of cases treated at Marine Hospitals and relief stations exceeded 55,000, 15,000 of which were hospital patients, a considerable increase over previous years. The Coast Guard Cutter "Androscoggin" was fitted out as a hospital ship and now affords relief to deep sea fishermen on the Banks of Newfoundland.

On the occurrence of plague at New Orleans, the first outbreak upon the Gulf seaboard, the state and local health authorities requested the Public Health Service to take charge of the situation. Extensive rat-proofing and other anti-plague measures were undertaken, resulting in the eradication of the disease from among human beings, and the practical extermination of the rodent infection.

Great reduction in the incidence of malaria was obtained in localities where surveys were conducted. Drainage projects, rice culture studies and the conditions surrounding the impounding of water for power purposes were investigated in order to eradicate as far as possible the disease in these areas. Scientific investigations of malarial infection showed that in the latitude of this country the most important agent in carrying the infection through the winter season is man, and not the infected, hibernating, *Anopheles* mosquitoes as was previously supposed. From the standpoint of prevention this is a discovery of considerable value.

Studies of occupational diseases and industrial hygiene were instituted at several places during the year. A survey of the industries of Cincinnati was made to determine the cause of the prevalence of tuberculosis among industrial workers. The investigations relating to the migration of persons suffering from tuberculosis were completed.

Upon the request of the health authorities of five states, the organization and operations of the respective boards of health were studied and recommendations advanced for improvement in the powers and duties of these bodies. The health organizations of several cities were likewise investigated.

Investigations of the pollution of streams and the examination of shellfish were also conducted.

Trachoma was combated in the Appalachian Mountains, where it is most prevalent, over 12,000 cases being treated. Surveys in certain states during the year showed that the disease is not an uncommon infection.

Rural sanitation work was conducted in six different states and everywhere resulted in the reduction of typhoid and other communicable diseases.

Public health laboratories for the prevention of the interstate spread of disease were established at Chicago, Seattle, and numerous other railway centers.

Additional duties have been imposed upon the Service by extension of relief benefits to the newly organized Coast Guard and the physical examination of seamen applying for the rating of "able seaman." For this reason, and because of the greatly increased health functions of the Service, an increase in the commissioned personnel is recommended. An additional building for the hygienic Laboratory and the establishment of a National Leprosarium for the proper segregation and care of cases of leprosy are also recommended.

### CARELESSNESS AND ACCIDENTS.

Five hundred and twenty-five vehicle drivers on the Pacific Coast did their best to break into a railroad crossing accident in the two years ended June 30, 1915, despite the fact that gates were down and warning bells ringing. This is shown in a report of the Southern Pacific Company, which reveals that during the period mentioned 525 crossing gates were broken by drivers who risked life and limb for speed and carelessness. The gamble taken by the drivers is obvious. To be broken the gates had to be down, and the gates are down only when trains are approaching. The railroad company spends over \$100,000 annually to operate and maintain crossing gates, but feels that the active co-operation of motorists and other vehicle drivers is imperative if crossing accidents are to be minimized.

Recently the Southern Pacific had observations taken at various crossings throughout the state to observe how careful drivers were in approaching the tracks. Of 17,021 motor vehicles observed, 11,836 drivers, or 69½%, looked neither way before crossing the tracks; 2.7% looked one way only, and but 27.8% looked in both directions. The almost incredible number of 3301, or 19.3% of the total number of drivers observed, ran over the crossings at a reckless rate of speed. But 35 drivers stopped their machines before crossing the tracks to see that no trains were approaching.

### NEW MEMBERS.

Hanlon, E. R., Los Angeles.  
 Rogers, A. C., Los Angeles.  
 Stovall, Leonard, Los Angeles.  
 Flagg, D. P., Los Angeles.  
 Athon, L. H., Los Angeles.  
 Blanchard, Wm. O., Los Angeles.  
 Gray, Etta, Los Angeles.  
 Dodge, Wm., Los Angeles.  
 Derrick, Joseph, Los Angeles.  
 Dozier, Earnest, Redding.  
 Hughes, H. W., Los Angeles.  
 Carter, W. E., Los Angeles.  
 Gerson, T. P., Los Angeles.  
 Metcalf, Clair F., Los Angeles.  
 Seaman, E. D., Los Angeles.  
 Johnson, P. V. R., Los Angeles.  
 Platt, I. S., Los Angeles.  
 Carter, Martin G., Los Angeles.  
 Levin, Z., Los Angeles.  
 Norton, C. W., Los Angeles.  
 Moore, M. L., Los Angeles.  
 Sugarman, Herman, Los Angeles.  
 Kearney, Elizabeth F., Los Angeles.  
 White, P. G., Los Angeles.  
 Jacobs, Edw. H., Los Angeles.  
 Wilson, H. P., Los Angeles.  
 Franklin, J. W., Los Angeles.  
 Tower, Franklin J., Los Angeles.  
 Bancroft, I. R., Los Angeles.  
 Jackson, J. A., Hollywood.  
 Taggart, T. E., Los Angeles.  
 Hoag, E. B., Pasadena.  
 Zuill, W. L., Los Angeles.  
 Hanson, Wayne P., Los Angeles.  
 Carson, Emma M., Los Angeles.  
 Du Bois, Willard Cecil, Santa Ana.  
 Gates, Amelia L., San Francisco.  
 Hill, Earl W., Eureka.  
 Pierson, P. H., San Francisco.

### DEATHS.

Atkinson, H. H., Harpoot, Turkey.  
 Bullard, Rose Talbott, Los Angeles.  
 Bryant, Edgar Reeve, San Francisco.  
 Craig, Thos. L., Soledad.  
 Jenkins, John E., Los Angeles.  
 Martineaut, E. D., San Francisco.

### RESIGNED.

Carter, J. M. G., Los Angeles.